

IN THE CLAIMS:

Claim 1 (previously presented): A method for protecting a civil aircraft from missiles with infrared seeker heads of portable anti-aircraft missile complexes, the aircraft having an engine with a level of radiation power, the method comprising the steps of:

detecting a launch of a missile from a location of launch, the missile having an infrared seeker head with an infrared sensitivity range, a power and an operation frequency;

continuously determining instantaneous coordinates of the missile in flight after the launch;

generating pulsed laser radiation, wherein a wavelength range of the pulsed laser radiation is within the sensitivity range of the infrared seeker head, a power of the pulsed laser radiation exceeding the power of radiation of the aircraft engine in the sensitivity range of the infrared seeker head, and a pulse repetition frequency of the pulsed laser radiation being at about the operation frequency of the infrared seeker head; and

sending the pulsed laser radiation to the instantaneous coordinates of the missile in flight.

Claim 2 (previously presented): The method according to claim 1, further comprising the steps of:

calculating launch coordinates of the missile at the location of launch;

transmitting information on the occurrence of the launch and on the launch coordinates to an earth safety flight providing system and an on-board aircraft objective control system.

Claim 3 (previously presented): The method according to claim 1, further comprising the steps of:

- receiving laser radiation reflected from the infrared seeker head;
- determining, by a power level of the reflected laser radiation, that the aircraft is being attacked by the missile with the infrared seeker head;
- determining, by a lowering of the power level of the reflected laser radiation, a failure of guiding of the infrared seeker head to the aircraft;
- thereafter, terminating the generation of the laser radiation; and
- transmitting information on the ~~fact of~~ failure of guiding the missile to an earth safety flight providing system and an on-board aircraft objective control system.

Claim 4 (previously presented): A system for protecting a civil aircraft from missiles with infrared seeker heads of portable anti-aircraft missile complexes, the system comprising, on board the civil aircraft being protected:

- launch sensors for detecting a launch of a missile from a location of launch, the missile having an infrared seeker head with an infrared sensitivity range, a power and an operation frequency;
- a coordinate sensor for sensing instantaneous coordinates of the missile in flight after the launch;
- a transceiver having a turn drive and an optical channel with an output connected to the coordinate sensor;
- an on-board calculator; and
- a laser radiation generator having an actuation device;

wherein the laser radiation generator is a fluorine-hydrogen-deuterium laser

radiation generator, the on-board calculator processing signals from the launch sensors for calculating launch coordinates of the missile launch location and for providing a control signal to the turn drive of the transceiver in order for an optical channel of the transceiver to be directed to the launched missile, as well as to process signals from the coordinate sensor for calculating the instantaneous missile coordinates and for providing an actuating signal to the actuation device of the laser radiation generator.

Claim 5 (previously presented): The system according to claim 4, wherein the on-board calculator transmits information on the occurrence of the missile launch and on the launch coordinates to an earth safety flight providing system and an on-board aircraft objective control system.

Claim 6 (previously presented): The system according to claim 4, further comprising a reflected laser radiation receiver connected to an additional output of the optical channel of the transceiver for providing signals to the on-board calculator which determines, by a power level of the reflected laser radiation, that the aircraft is being attacked by a missile with the infrared seeker head, and to determine, on lowering of the power level of the reflected laser radiation, a failure of guiding of the infrared seeker head to the aircraft; to provide to the actuation device of the laser radiation generator an actuating signal which terminates the generation of the laser radiation, and to transmit information on the failure of guiding of the missile to the earth safety flight providing system and aircraft objective control system.

Claim 7 (previously presented): The system according to claim 4, wherein the

launch sensors are sensors of ultraviolet radiation.

Claim 8 (previously presented): The system according to claim 4, wherein the coordinate sensor is a narrow-directed sensor of ultraviolet radiation.

Claim 9 (previously presented): The system according to claim 4, wherein the optical channel of the transceiver further transmits the radiation of the laser radiation generator towards the launched missile.